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Tepalcatia, a new genus of hydrobiid snails (Prosobranchia: Rissooidea) from the Rio Balsas basin, central Mexico

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Abstract.—*Tepalcatia,* a new genus of cochliopine snail from the Rio Balsas basin of central Mexico, is composed of *Tepalcatia tela,* new species, described herein; and *Tepalcatia polia* (Thompson & Hershler, 1991), previously assigned to *Aroapyrgus.* A third species, *Tepalcatia bakeri* (Pilsbry, 1891a), is tentatively referred to the genus. This snail, known only as a subfossil, most recently was assigned to *Tryonia. Tepalcatia* is placed in the informal "*Cochliopa* group" based on the absence of penial glands; division of penis into a folded base and smooth, tapered filament; and the very short female sperm duct. *Tepalcatia* is distinguished from other members of this group by its ovate-conic to turriform shell; long ducts of the female sperm pouches; and large circular-horizontal loop of the coiled oviduct. *Tepalcatia tela* differs from *T. polia* by its smaller size, more elongate shell, longer and broader penial filament, and several additional anatomical features. *Tepalcatia bakeri* is a large, slender-shelled species with stronger spiral sculpture than its congeners.

The freshwater snail fauna of the American tropics remains poorly known (Thompson & Hanley 1982). The only families that have been studied within the context of detailed anatomical investigations are the biomedically important Planorbidae, and the Hydrobiidae. Those Planorbidae that are not biomedically important have been little treated in contemporary literature. Although the Hydrobiidae may be the best known family of freshwater snails, its tropical American fauna has been little collected, and cursory field investigations routinely yield new species. One such species is the basis of this report.

The only drainages in Mexico and Central America that have been surveyed in some detail for aquatic gastropods are those of the Rio Panuco (Pilsbry 1909, 1910; Pilsbry & Hinkley 1910, Pilsbry 1956) and the Rio de la Pasión (Goodrich & Schalie 1937), a tributary of the Rio Usumacinta. The Rio Balsas of central-Pacific Mexico, whose drainage basin is much larger than that of the Rio Panuco and is comparable to that of the Rio Usumacinta (Tomayo 1964, table 1), is by contrast almost completely unexplored. Pilsbry (1891b) recorded a planorbid, *Gyraulus parvus,* from near Yautepec (Morelos) and also described a hydrobiid from this general area (Pilsbry 1891a), while we described a second hydrobiid species, also from the eastern portion of the Balsas basin (Thompson & Hershler 1991). All three snails are known from single localities. Herein, we describe another new hydrobiid from the Rio Balsas basin and propose a new genus for this novelty, together with the two earlier recorded hydrobiids from this drainage.

Material and Methods

Specimens used for anatomical study were anaesthetized with menthol crystals overnight and subsequently fixed in Bouin's

solution and preserved in 70% ethanol. Shell whorl counts and measurements were made using the methods of Hershler (1989). Counts of cusps on radular teeth were made by inspection of mounted material using a scanning electron microscope; other components of radular description were generated by study of scanning electron micrographs. Morphological terminology follows Hershler & Ponder (1998). Specimens of the new species were deposited in the Florida Museum of Natural History, Gainesville (UF); and the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM). Other material examined was from the above collections and that of the Academy of Natural Sciences of Philadelphia (ANSP).

Family Hydrobiidae
Subfamily Cochliopinae

Tepalcatia, new genus

Type species.—Tepalcatia tela, new species. Also included are *Aroapyrgus polius* Hershler & Thompson, 1991; and *Potamopyrgus bakeri* Pilsbry, 1891a.

Etymology.—From the Nahuatl (Aztec) *tepalcate,* meaning shard, which is used as a linguistic stem for various regional features associated with the southern edge of the Mesa Central (e.g., Rio Tepalcatepec). The genus name refers to the distribution of the three included species along this escarpment. Gender feminine.

Diagnosis.—A central Mexican cochliopine genus in the informal "*Cochliopa* group" (of Hershler & Thompson 1992) which differs from other group members in having a more slender (versus planispiral to low conical) shell; elongate female sperm pouch ducts; and a large, circular or posteriorly oriented (versus a small, narrowly vertical) loop of the coiled oviduct.

Description.—Shell ovate- to elongate-conic, with convex spire, minute to small (maximum length 1.6–4.0 mm). Shell clear and transparent. Periostracum thin, tan or gray. Apex blunt, often slightly tilted. Embryonic shell of 1.6–1.75 whorls, with two distinct sections; initial portion (ca. 0.75 whorl) irregularly roughened and/or lined with a few spiral elements, sculpture diminishing to near smooth on later portion. Teleoconch of 2.5–4.25 convex whorls sculptured with finely spaced growth lines and occasional, narrowly spaced spiral striae; a few spiral ridges and weak collabral sometimes present in one species. Aperture ovate, small, inner lip thin, adnate to and usually complete across parietal wall; outer lip thin, straight or weakly sinuate. Umbilicus absent or rimate to well developed.

Operculum thin, transparent, amber colored, multispiral, with eccentric nucleus. Outer side of operculum smooth or frilled along edge of last whorl; attachment scar margin smooth.

Radula small, with about 48 well-formed rows of teeth. Dorsal edge of central teeth indented; basal process angled, rounded below, even with lateral margins; median cusps longer than laterals, dagger-like; large basal cusp sometimes flanked by 1–2 smaller cusps. Lateral teeth with rounded or weakly pointed central cusp, weakly or moderately developed basal tongue, and long, straight, flexed outer wing of medium width; cutting edge weakly indented dorsally. Cusps on outer marginal teeth larger than those on inner marginals.

Head-foot pigment well-developed, gray or black. Snout darker than cephalic tentacles, although distal lips pale. Snout weakly tapered, distal lips expanded. Cephalic tentacles narrow, a little longer than snout, parallel-sided, with rounded tips. Eyes small, black, at outer bases of tentacles. Bases of tentacles without pronounced eyelobe. Snout with scattered ciliary tufts. Cephalic tentacles with well developed longitudinal ciliary tracts on dorsal and ventral surfaces, and along inner edges. Mantle weakly pigmented; pigment concentrated along edges of genital ducts and ctenidium. Pigment well developed on testis and stomach; digestive gland pigmented with scattered black granules.

Ctenidium well developed, wide, extends entire length of pallial cavity. Ctenidial filaments 25–27, triangular, lateral surfaces ridged. Osphradium located near middle of ctenidium, short, narrow. Rectum nearly straight, packed with oval fecal pellets. Renal organ extends ca. 33% of length of renal gland into pallial roof, renal gland oriented longitudinally, opening of gland with simple lips. Pericardium with a little less than 50% of length in pallial roof, ctenidium overlapping anterior end of pericardium. Stomach with similar-sized anterior and posterior chambers, single digestive gland opening, very small posterior caecum present or absent; style sac about as long as remainder of stomach.

Testis of numerous simple vertically stalked lobes occupying most of visceral coil behind stomach and overlapping posterior chamber of stomach. Seminal vesicle a tightly coiled mass of numerous narrow coils, positioned beneath about 0.25 whorl of testis behind stomach. Prostate gland almost entirely visceral, sub-globular or oval, thin-walled. Visceral vas deferens opens ventrally in front of posterior edge of prostate gland; pallial vas deferens opens ventrally a little behind anterior end of prostate gland, straight. Penis simple, with smooth, tapered filament lacking papilla; base moderately wide, with transverse folds. Penial duct centrally positioned, weakly coiled in basal or medial section, otherwise straight.

Ovary simple, short, occupying small part of visceral coil (0.25 whorl or less). Coiled oviduct unpigmented, not bound in connective tissue, of glandular appearance, with single large loop which is nearly circular or posteriorly oriented. Females ovoviviparous, with young brooded in glandular oviduct. Brood pouch thin-walled, with anterior opening. Albumen gland small, largely or entirely restricted to posteriorly folded section of glandular oviduct. Anterior section of brood pouch containing 3–15 shelled, pigmented young, posteriorly section packed with numerous small embryos lacking shells. Brood pouch opening a terminal papilla. Sperm pouches small, with pink sheen, horizontal, positioned well behind pallial wall and extending to near posterior edge of albumen gland; ducts broadly overlapping, opening from anterior edge of pouches. Bursa copulatrix narrow or oval, duct narrow or broad. Seminal receptacle oval or sub-globular, duct narrow. Coiled oviduct and seminal receptacle join a little behind posterior pallial wall at point where former opens to posterior edge of albumen gland. Sperm duct opening to distal section of bursal duct, very short. Spermathecal duct narrow, opening a little in front of posterior wall of pallial cavity.

Distribution.—*Tepalcatia* is distributed in widely separated headwater regions of the Rio Balsas and its western tributary, the Rio Tepalcatepec (Fig. 1).

Remarks.—The anatomical groundplan of *Tepalcatia* well conforms to that of the "*Cochliopa* group" (sensu Hershler & Thompson 1992), an informally recognized assemblage of five Neotropical cochliopine genera (*Aroapyrgus, Cochliopa, Cochliopina, Mexithauma, Subcochliopa*) which share the following characters: absence of penial glands; division of the penis into a creased base and a smooth, tapered filament; and very short female fertilization duct (=sperm duct). Although phylogenetic relationships of cochliopines have not been evaluated using morphological criteria, an analysis based on mtDNA sequences depicted four members of the "*Cochliopa* group," together with a species of the enigmatic South American genus *Lithococcus*, as a moderately supported monophyletic group (Liu et al. 2001). Among members of this group *Tepalcatia* shares with *Aroapyrgus, Mexithauma* and some species of *Cochliopina* an ovoviviparous reproductive mode. However, this feature is widespread among cochliopines (Hershler & Thompson 1992) and cannot be assumed to be uniquely derived in the above set of taxa. Shells of *Tepalcatia* most closely resemble those of *Aroapyrgus* among this group and we conjecture a close relationship among these

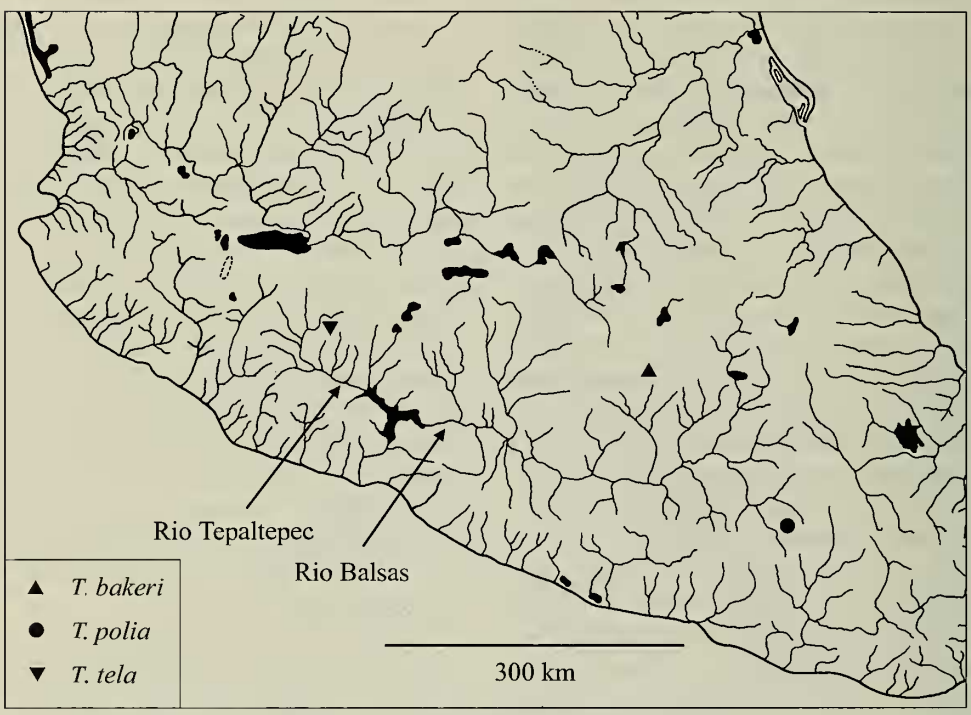

Fig. 1. Drainage map of central Mexico showing distribution of *Tepalcatia.*

taxa, as supported by their geographical proximity in central Mexico.

Tepalcatia tela, new species
Figs. 2–7

Etymology.—From the Latin *tela,* meaning dart, and referring to the lanceolate shape of the shell.

Diagnosis.—Distinguished from other congeners by its small size, elongate-conic shell, and orthocline outer apertural lip. This species also differs from *T. polia* (the only other congener whose anatomy has been studied) in having fewer cusps on the inner marginal teeth, weaker transverse ciliation on the left cephalic tentacle, broader ctenidial filaments, longer and broader penial filament, smaller ovary, posteriorly oriented oviduct coil, smaller albumen gland, fewer brooded young, narrower bursal duct, and a short connecting duct between the seminal receptacle duct and the oviduct.

Description.—Shell (Figs. 2A, 3) elongate-conic, 1.63–2.99 mm tall, SW/SH 0.42–0.51, AH/SH 0.27–0.38, whorls, 4.25–6.0. Periostracum tan. Shell apex shown in Fig. 2B. Teleoconch whorls weakly to moderately convex; sculpture of well developed growth lines; numerous, weak spiral striae also commonly present. Outer lip orthocline, straight or weakly sinuate. Female shells (Fig. 3A) larger, broader, and with smaller aperture than males (Fig. 3B, Table 1). Opercula shown in Fig. 2C, D.

Radula ribbon length ca. 370 μm, width ca. 70 μm; central tooth width ca. 17.8 μm. Dorsal edge of central teeth (Fig. 4A) strongly indented, lateral cusps 3–7. Lateral teeth (Fig. 4B) with 4–8 cusps on inner side, 5–7 cusps on outer side; outer wing length 135–160% of dorsal edge width. Inner marginal teeth (Fig. 4C) with 21–25 cusps, cutting edge occupying ca. 43% of tooth length, inner side of tooth with prominent flange occupying >50% of tooth length. Outer marginal teeth (Fig. 4D) with 18–23 cusps, cutting edge occupying ca. 30% of tooth length, outer side of tooth

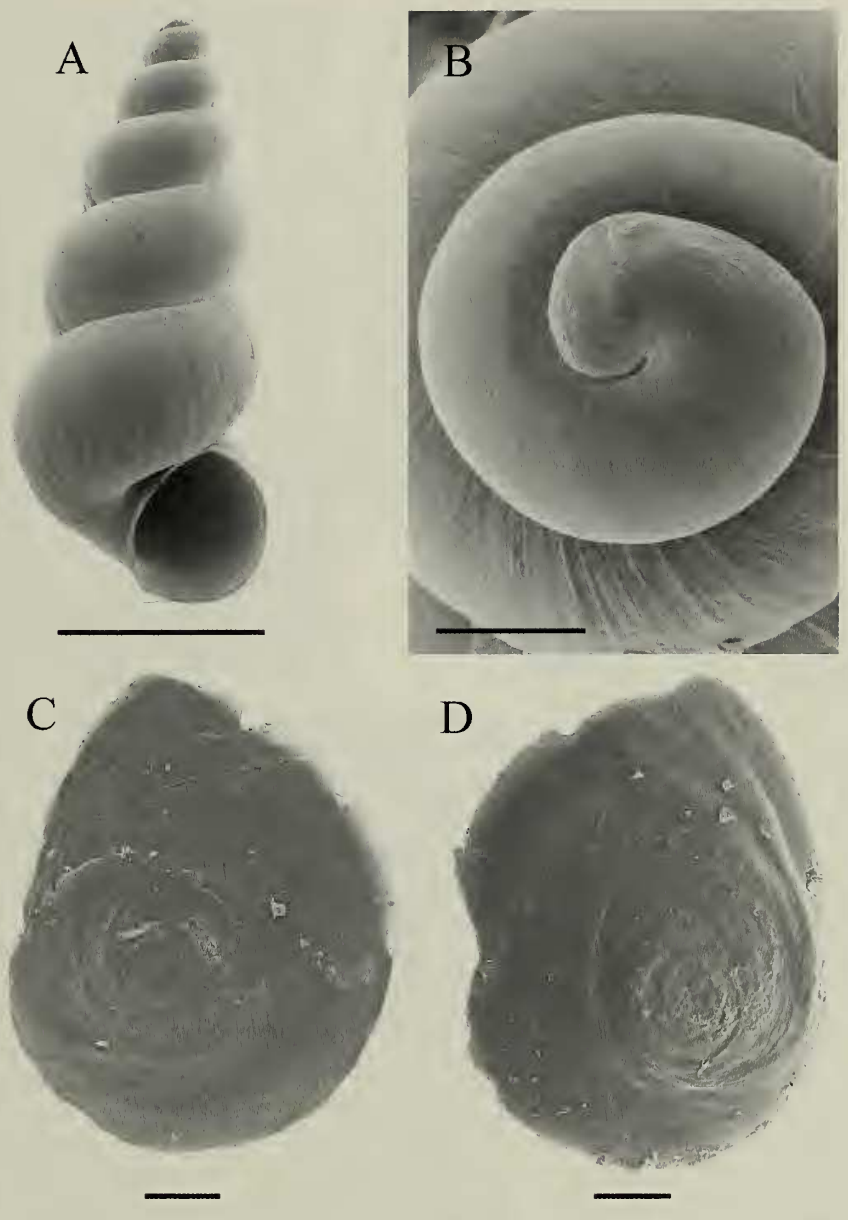

Fig. 2. Shells and opercula of *Tepalcatia tela*. A. Shell, UF 283874; scale = 1.0 mm. B. Shell apex, UF 283874; scale = 100 μm. C. Operculum, outer side, UF 283875; scale = 100 μm. D. Operculum, inner side, UF 283875; scale = 100 μm.

with flange occupying <50% of tooth length. Section of radula ribbon shown in Fig. 4E.

Dorsal surfaces of tentacles sometimes having a long, central, longitudinal band. Digestive gland light green, stomach uniformly black. Penis pale or with a weak pigment band along inner edge. Cephalic tentacle ciliation shown in Fig. 5A–C. Transverse ciliary tufts (Tt) absent or weakly developed on left tentacle (Fig. 5C). Ctenidial filaments slightly wider than tall, apices positioned slightly to left of midline.

Testis 1.5 whorls. Visceral vas deferens

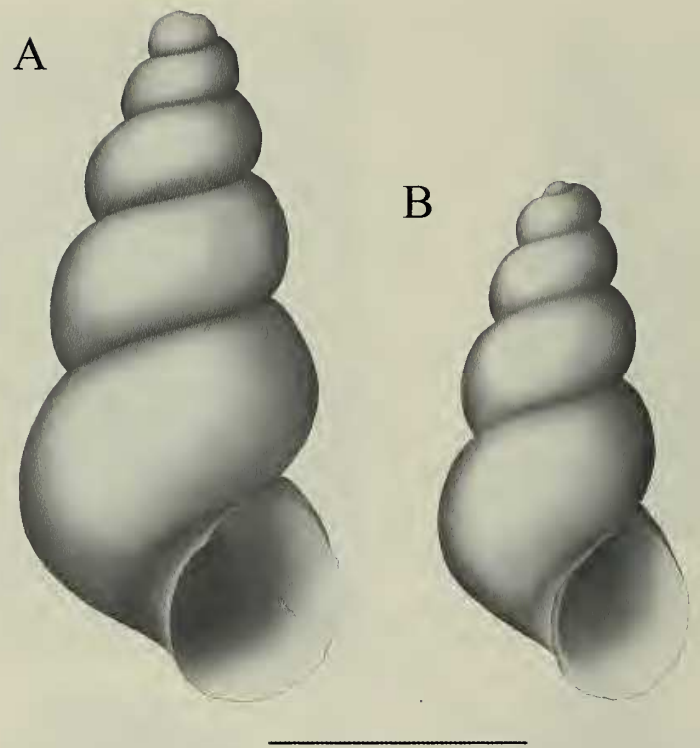

Fig. 3. Shells of *Tepalcatia tela*. A. Holotype, UF 287449. B. Shell of male, UF 283874. Scale = 1.0 mm.

(Vvd) opening a little in front of posterior edge of prostate gland (Fig. 6A). Penis (Figs. 5D, 6B) small, coiled counter-clockwise; filament (Pf) about 50% as long and slightly narrower than base. Penial duct (Pd) undulating in base. Ovary tubular, occupying <0.25 whorl. Shelled embryos 3–5, embryos without shells packed into two rows posteriorly. Albumen gland (Ag) restricted to posteriorly folded section of glandular oviduct (Fig. 7A). Coiled oviduct loop (Co) posterior-oblique to horizontal. Bursa copulatrix (Bu) narrowly oval, broadly overlaps left side of seminal receptacle (Sr), duct (Dbu) much narrower than pouch (Fig. 7B). Seminal receptacle (Sr) sub-globular. Oviduct and seminal receptacle duct joined by short connecting duct.

Table 1.—Shell measurements of holotype (UF 287449) and paratypes (UF 283874) of *Tepalcatia tela*. T values are given for comparisons of means among sexes (95% confidence interval). *Sexual dimorphism significant ($P < 0.01$).

	SH	SW	LBH	WBW	AH	AW	TW	SW/SH	AH/SH
Holotype	2.57	1.19	1.45	1.13	0.792	0.673	5.75	0.462	0.308
Paratypes (males, n = 8)									
$\bar{X}$	1.71	0.84	1.02	0.780	0.619	0.482	4.44	0.491	0.363
SD	0.134	0.064	0.057	0.041	0.039	0.026	0.178	0.014	0.012
Paratypes (females, n = 13)									
$\bar{X}$	2.73	1.19	1.46	1.15	0.805	0.647	5.50	0.437	0.295
SD	0.182	0.055	0.064	0.048	0.038	0.033	0.270	0.015	0.011
T	14.8*	13.0*	16.4*	18.9*	10.8*	12.6*	10.9*	−8.22*	−12.6*

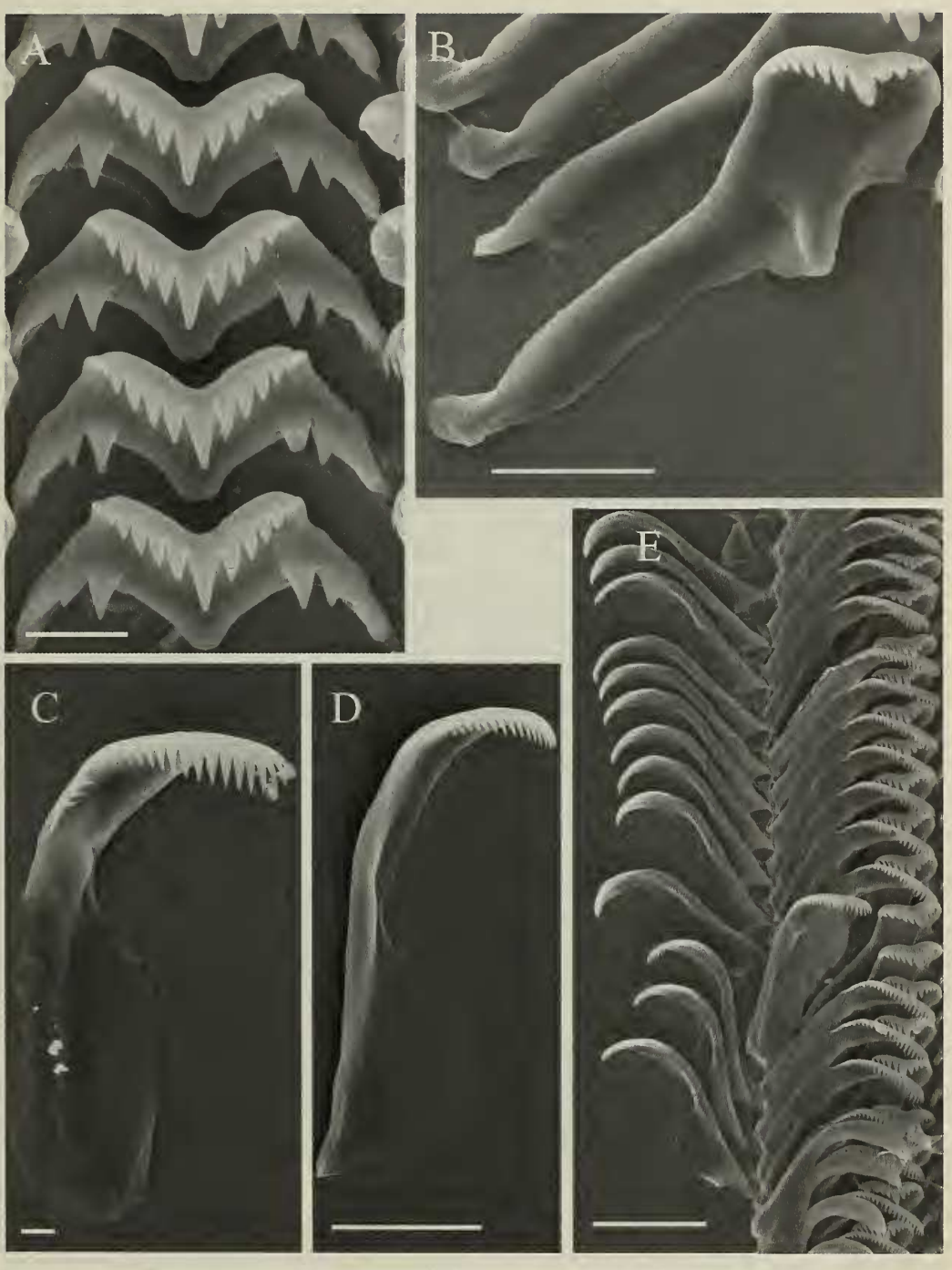

Fig. 4. Radulae of *Tepalcatia tela,* UF 283875. A. Central teeth; scale = 5 μm. B. Lateral tooth; scale = 10 μm. C. Inner marginal tooth; scale = 2 μm. D. Outer marginal tooth; scale equals 10 μm. E. Section of radular ribbon; scale = 20 μm.

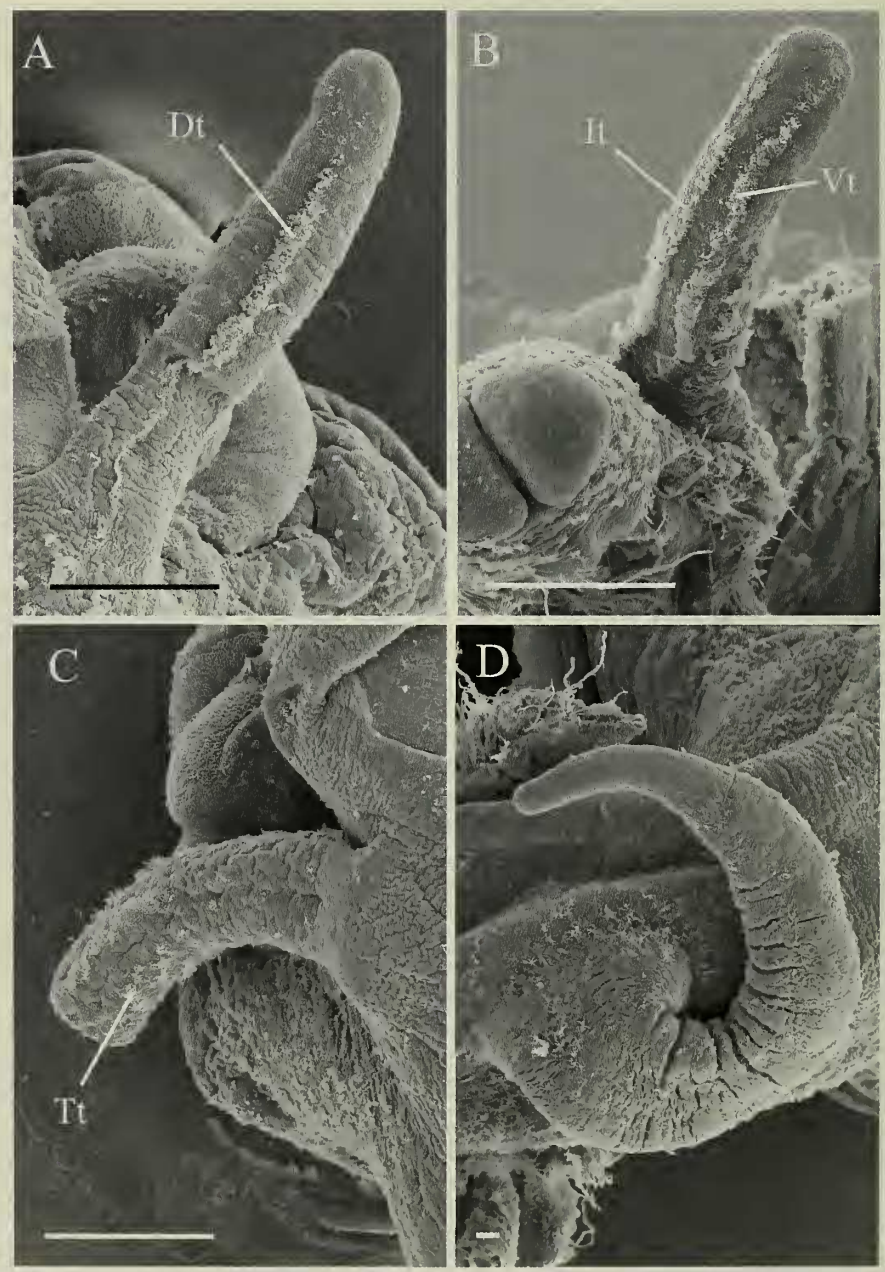

Fig. 5. Head and penis of *Tepalcatia tela,* UF 283875. A. Right cephalic tentacle, dorsal surface. B. Left cephalic tentacle, ventral surface. C. Left cephalic tentacle, dorsal surface. D. Penis. Scales = 100 μm. Abbreviations: Dt, dorsal ciliary tract; It, tract along inner edge of tentacle; Tt, transverse ciliary tract; Vt, ventral ciliary tract.

Type material.—A large sample (original field number FGT 6093) obtained by F. G. Thompson and L. Appelton on 22 Feb 2001 from a stream ("Los Ultimos") 3.0 km north of Santa Ana Amatlán, Michoacán, 19°10.7′N, 102°32.1′W, 430 m elevation. Snails were collected from roots of shrubs which were growing along the edge of the

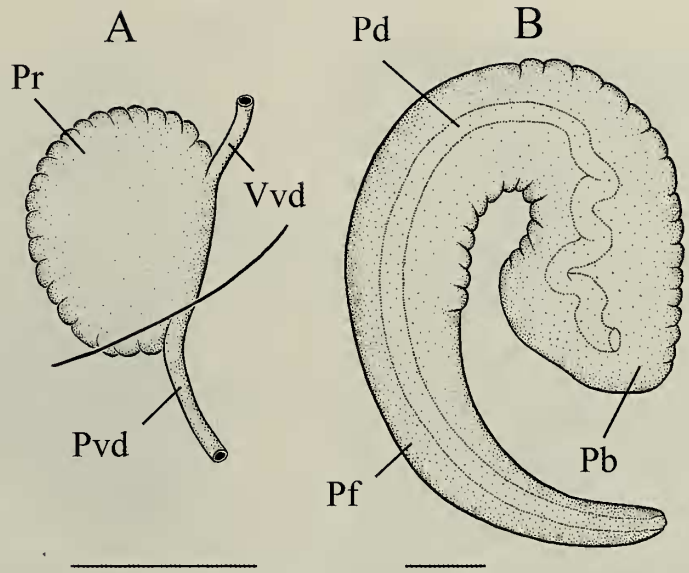

Fig. 6. Male genitalia of *Tepalcatia tela,* UF 283875. A. Prostate gland, left side. B. Penis. Scales = 100 μm. Abbreviations.—Pb; penis base; Pd, penial duct; Pf, penial filament; Pr, prostate gland; Pvd, pallial vas deferens; Vvd, visceral vas deferens.

stream in moderate current. The holotype (UF 287449, Fig. 3A) is a dried female from this series, while remaining specimens are reposited as paratypes (UF 283874, UF 283875, USNM 10000276).

Other material examined.—Shells and alcohol-preserved specimens from a spring-fed lagoon along Mexican Highway 120, 7.5 km northwest of Apatzingán, Michoacán, 19°07.9′N, 102°25.2′W, 380 m elev. (UF 283862, UF 283869, UF 283848, UF 283849). This spring is known locally as La Mojarra and is shown on a local topographic map as slightly northwest of La Mojada. The spring issues from a basalt flow and enters a pool that is 30 m wide and 2 m deep, with clear water and a silt bottom. The pool is drained by an irrigation canal that flows south.

Remarks.—Other snails associated with *Tepalcatia tela* at both localities were *Cochliopina* sp., *Melanoides tuberculata, Biomphalaria* sp., *Physella* sp., and *Ferrissia* sp.

Among the few hydrobiids previously recorded from central Mexico are three species of *Durangonella* (Morrison 1946) whose narrow shells resemble that of *Tepalcatia tela.* All three of these species are unknown in terms of anatomy, and their generic placements are further clouded by the uncertain taxonomic status of *Durangonella* (Hershler et al. 2002). Two of these species, *D. dugesiana* and *D. mariae,* are sub-fossils from the Mesa Central. They are larger than *T. tela. Durangonella dugesiana* further differs from *T. tela* by its more elongate shape and shallower sutures, while *D. mariae* is distinguished by its more flattened apex. The third species, *D. pilsbryi,* described from material collected in the vicinity of Manzanillo (Colima), also is larger than *T. tela* and has a broader, more cylindrical shell.

Tepalcatia polia (Thompson & Hershler, 1991)
Figs. 8–11

Aroapyrgus polius Thompson & Hershler, 1991:669–671, fig. 1.

Diagnosis.—A large species which differs from other congeners in having an ovate-conic shell.

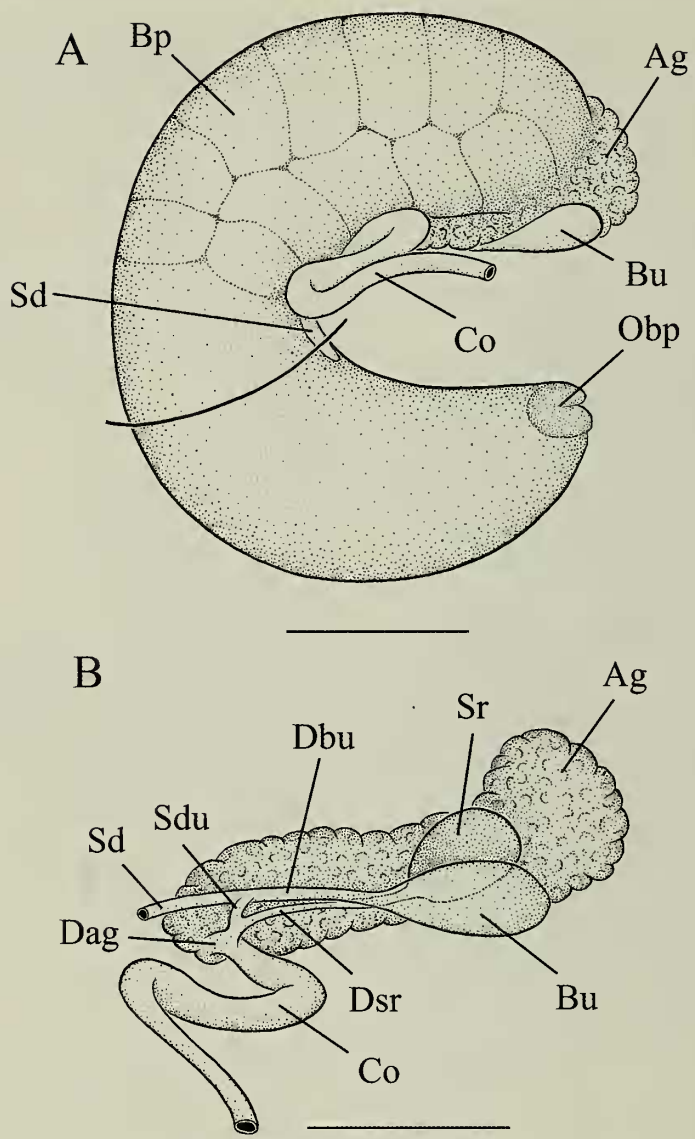

Fig. 7. Female genitalia of *Tepalcatia tela,* UF 283875. A. Glandular oviduct and associated structures, left side. B. Sperm pouches and associated structures. Scales = 250 μm. Abbreviations: Ag, albumen gland; Bp, brood pouch; Bu, bursa copulatrix; Co, coiled oviduct; Dag, duct to the albumen gland; Dbu; bursal duct; Dsr, seminal receptacle duct; Obp, opening of brood pouch; Sd, spermathecal duct; Sdu, sperm duct; Sr, seminal receptacle.

Description (emended from Thompson & Hershler 1991).—Shell (Fig. 8A) ovate-conic, 2.37–3.70 mm tall, SW/SH 0.57–0.63, AH/SH 0.37–0.44, whorls 4.5–5.25. Periostracum grey. Shell apex shown in Fig. 8B. Teleoconch whorls weakly convex, sculpture of weak growth lines. Outer lip weakly prosocline, straight. Opercula shown in Fig. 8C, D.

Radula ribbon length ca. 330 μm, ribbon width ca. 77 μm; central tooth width ca. 18.5 μm. Dorsal edge of central teeth (Fig. 9A) moderate to strongly indented, lateral cusps 5–9. Lateral teeth (Fig. 9B) with 4–

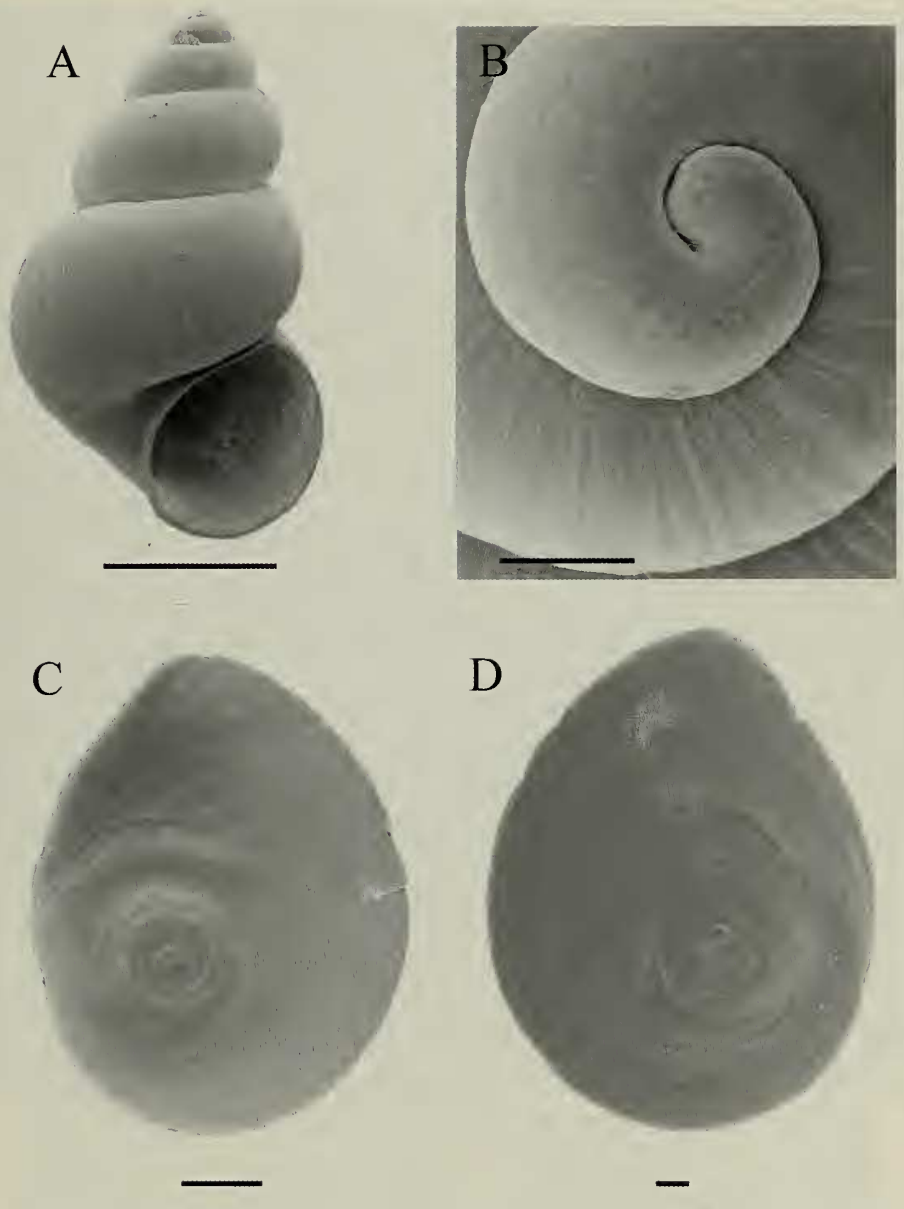

Fig. 8. Shells and opercula of *Tepalcatia polia*. A. Shell, UF 174989; scale = 1.0 mm. B. Shell apex, UF 174989; scale = 100 μm. C. Operculum, outer side, UF 174988; scale = 100 μm. D. Operculum, inner side, UF 174988; scale = 50 μm.

5 cusps on inner side; 5–7 cusps on outer side; outer wing length 180% of dorsal edge width. Inner marginal teeth (Fig. 9C) with 28–31 cusps, cutting edge occupying ca. 43% of tooth length, inner side of tooth with prominent flange occupying >50% of tooth length. Outer marginal teeth (Fig. 9D) with 17–23 cusps, cutting edge occupying ca. 24% of tooth length, outer side of tooth with flange occupying ca. 50% of tooth length. Section of radula ribbon shown in Fig. 9E.

Digestive gland grey-white. Stomach chambers pigmented with scattered black

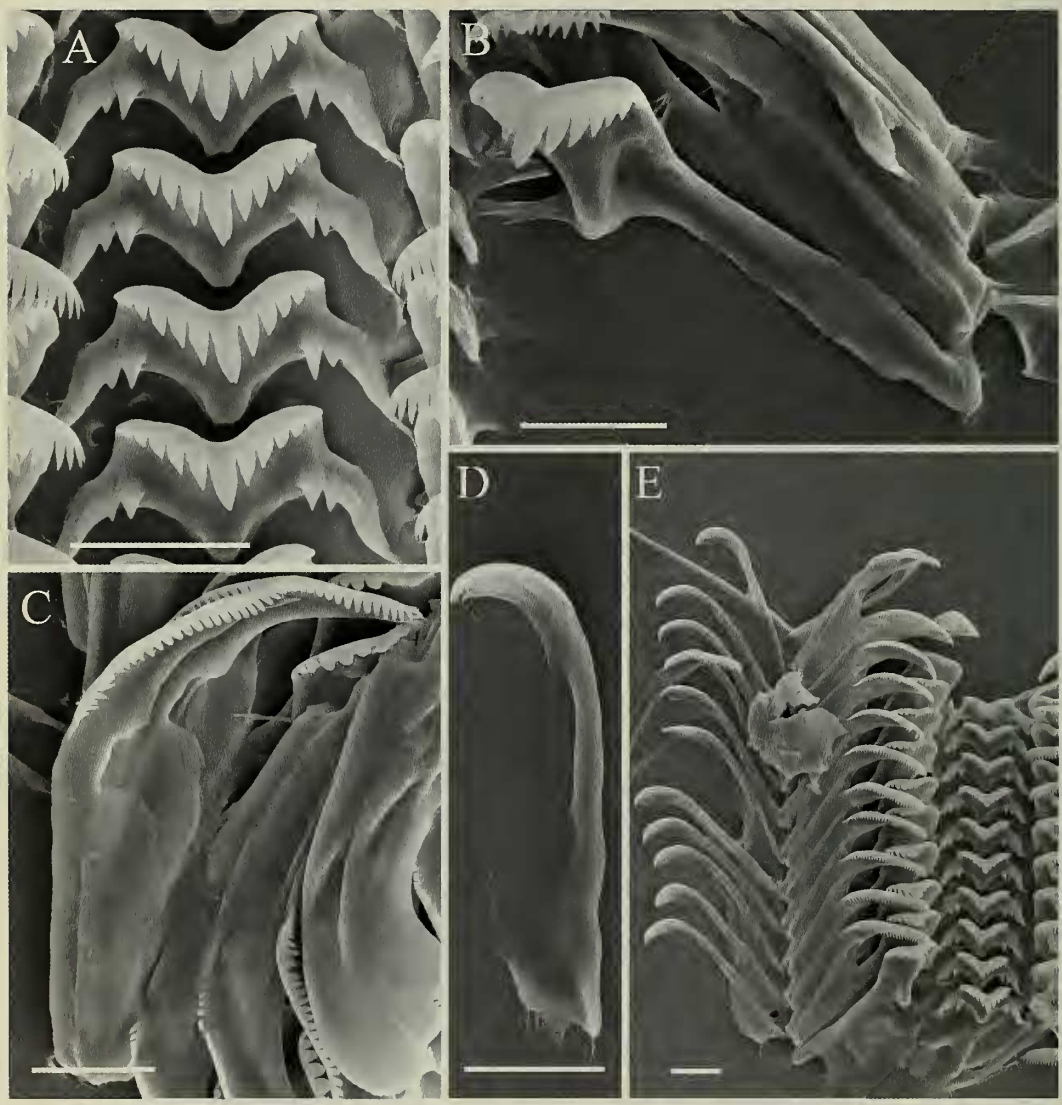

Fig. 9. Radulae of *Tepalcatia polia,* UF 174988. A. Central teeth. B. Lateral tooth. C. Inner marginal teeth. D. Outer marginal tooth. E. Section of radular ribbon. Scales = 10 μm.

granules; style sac near uniformly black. Penis pale or lightly pigmented, with melanin often concentrated on base. Cephalic tentacle ciliation shown in Fig. 10A–C. Short, transverse ciliary tracts well developed along basal inner edge of left tantacle (Fig. 10C). Ctenidial filaments taller than wide, apices positioned well to left of midline.

Testis 1.0–1.5 whorls. Visceral vas deferens opening near middle of prostate gland (not figured). Penis (Figs. 10D, 11A) medium-large, weakly curved; filament (Pf) very short to about half length of base (Pb), narrow relative to base. Penial duct (Pd) undulating in medial section. Ovary a small sac occupying ca. 0.5 whorl. Shelled embryos 5–15, embryos without shells packed into one or two rows. Albumen gland posteriorly folded, with short dorsal section. Coiled oviduct (Co) usually open, sub-circular, rarely a tight posterior-

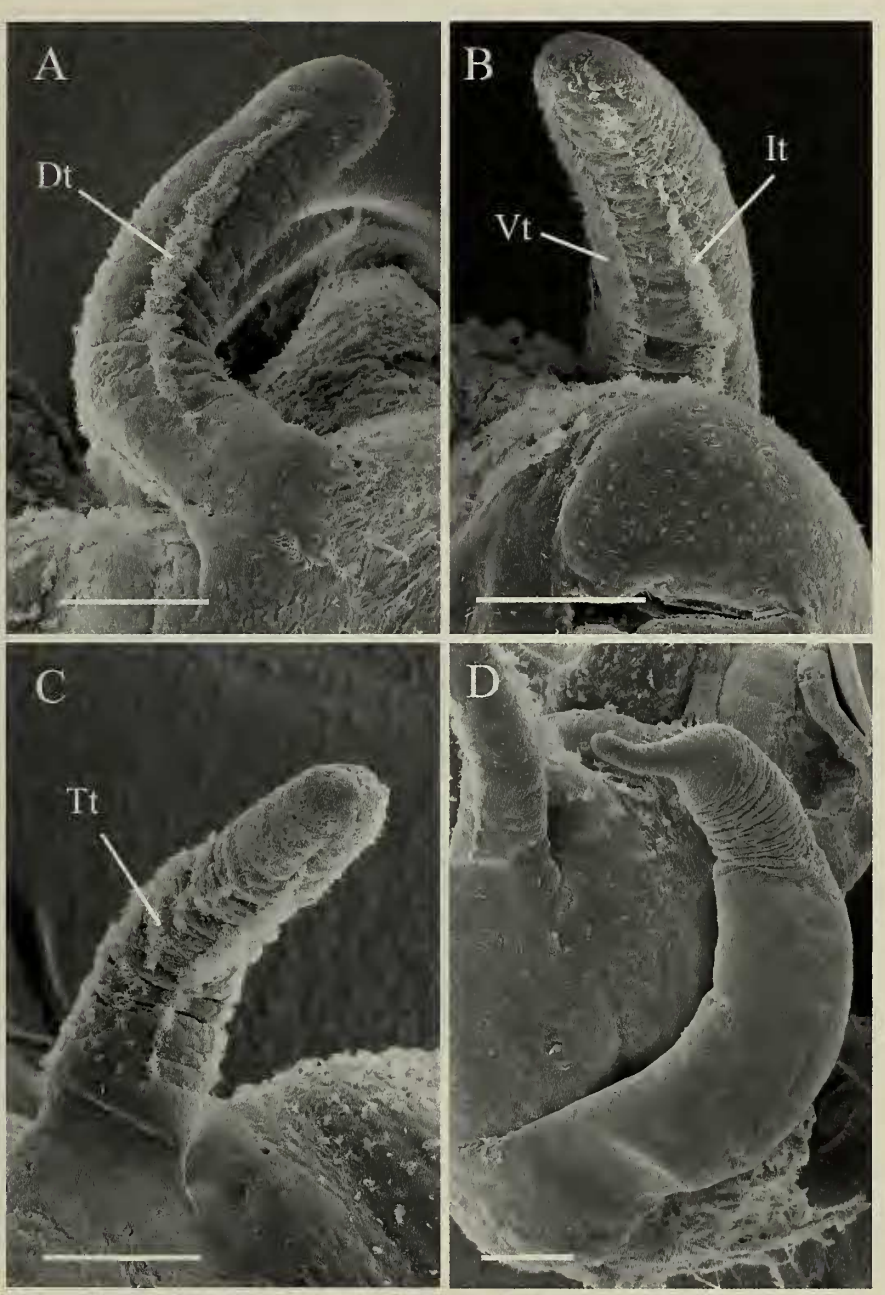

Fig. 10. Head and penis of *Tepalcatia polia,* UF 174988. A. Right cephalic tentacle, dorsal surface. B. Left cephalic tentacle, ventral surface. C. Left cephalic tentacle, dorsal surface. D. Penis. Scales = 100 μm. Abbreviations: Dt, dorsal ciliary tract; It, tract along inner edge of tentacle; Tt, transverse ciliary tract; Vt, ventral ciliary tract.

oblique loop (Fig. 11B). Bursa copulatrix (Bu) elongate-ovate, duct almost as wide as pouch. Seminal receptacle (Sr) ovate, broadly overlapping bursa copulatrix on left side. Oviduct and seminal receptacle join directly.

Material examined.—Holotype, UF 175028; paratypes UF 174988, UF 174989,

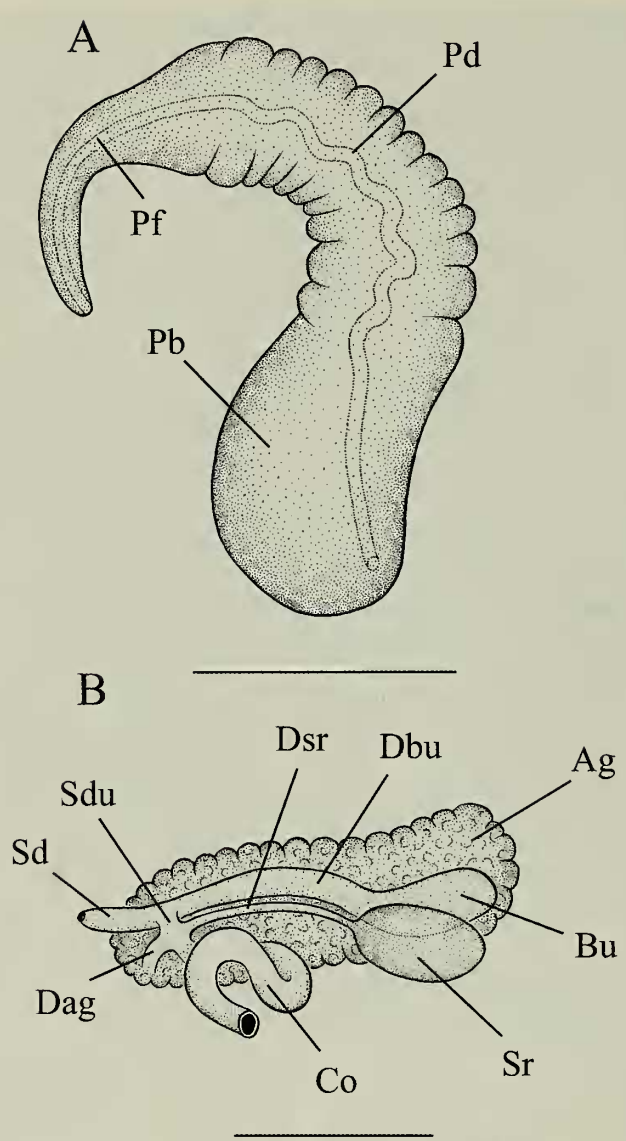

Fig. 11. Genitalia of *Tepalcatia polia,* UF 174988. A. Penis; scale = 500 μm. B. Sperm pouches and associated structures; scale = 250 μm. Abbreviations: Ag, albumen gland; Bu, bursa copulatrix; Co, coiled oviduct; Dag, duct to the albumen gland; Dbu, bursal duct; Dsr, seminal receptacle duct; Pb, penis base; Pd, penial duct; Pf, penial filament; Sd, spermathecal duct; Sdu, sperm duct; Sr, seminal receptacle.

USNM 860566. All of these lots are from a small spring-fed pool 3.5 km northeast of Tamazulapan del Progreso, Oaxaca, Mexico, 2100 m elevation.

Remarks.—We previously described this species and allocated it to *Aroapyrgus.* Subsequently, we have studied the anatomy of this snail in more detail and discovered that its female anatomical groundplan (Fig. 11B) differs substantially from that of the type species of *Aroapyrgus* (Hershler & Thompson 1992, fig. 15) and is closely similar to that of *Tepalcatia tela.* Accordingly, we refer it to the genus *Tepalcatia.*

Fig. 12. Lectotype of *Tepalcatia bakeri,* ANSP 61578. Scale = 1.0 mm.

Tepalcatia bakeri (Pilsbry, 1891a)
Fig. 12

Potamopyrgus ? *bakeri* Pilsbry, 1891a:9.—Pilsbry, 1891b:328–329, pl. 15 (figs. 9–11).—Fischer & Crosse, 1891:277.—Baker, 1964:171 (lectotype selection).
Amnicola bakeri.—Martens, 1899:435.
Tryonia bakeri.—Taylor, 1966:196.

Diagnosis.—A large species whose shell differs from that of other congeners in having stronger spiral sculpture, and occasional weakly developed collabral ribs and basal angulation of late teleoconch whorls.

Description (from Pilsbry 1891b:328).—"Shell [Fig. 12] slender, elongated, tapering, the altitude more than twice the diameter. Whorls 5.5, very convex, separated by deeply impressed sutures; apex somewhat obtuse. Aperture small, ovate, its length contained more than three times in the length of the shell; peristome continuous, thin. Umbilicus a closed rimation behind the inner lip. Surface marked by delicate growth-lines, having low, inconspicuous longitudinal folds (sometimes quite regular and well marked on the upper whorls), and encircled by numerous fine, subobsolete spiral striae. Alt. 4, diam 1.9 mm."

Type locality.—Yautepec [Morelos], Mexico. Pilsbry (1891b:328) later stated that specimens were "dug from the bank of a stream east of Yautepec [Morelos], Mexico." Collector, F. C. Baker. Lectotype, ANSP 61578 (Fig. 12); paralectotypes, ANSP 408191.

Remarks.—This species was described on the basis of subfossils and remains known only from the original type material. It resembles *Tepalcatia tela* in shape of the shell and its apex and we tentatively assign it to *Tepalcatia* on this basis, along with its geographic location within the Rio Balsas basin (where other species of *Tepalcatia* live). Note that no other slender-shelled hydrobiid genera are known from central Mexico other than *Durangonella,* whose taxonomic status is problematic (Hershler et al. 2002).

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